

SWIM Users Forum

Presented to:
SWIM Users Forum

By:
SWIM SCDS Team

Date:
September 12, 2023



Federal Aviation
Administration



Agenda

- **SWIFT Portal Subscription Updates**
- **Policy Language Clarification**
- **Operational Cost Management**
- **TBFM 4.15 Updates**






SWIFT Portal Subscription Updates

Purpose

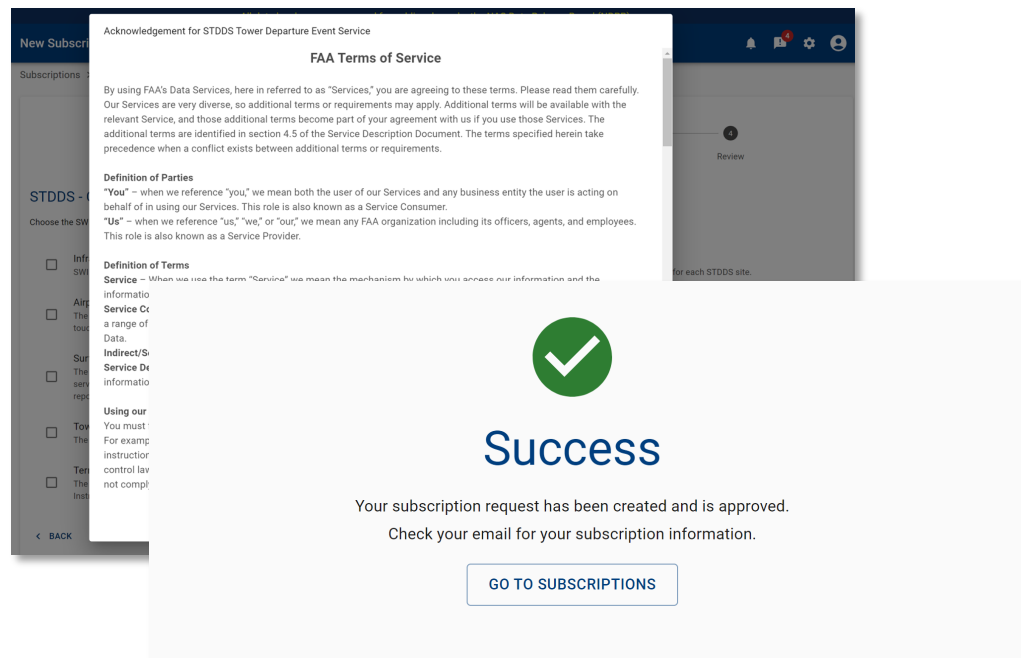
SWIFT Portal v4 provides a streamlined and modern user experience by providing expedient subscription approvals.

- **Service Access Agreements (SAAs) have been migrated directly into the SWIFT Portal, and we can now provide automatic subscription approval.**
-  **Users no longer need to visit a separate SAA portal.**



Subscription Provisioning

- **Service Access Agreement signing is built into the subscription wizard now to ensure you can find and sign them easily.**
- **Subscriptions are automatically created and approved, providing a true self-service experience.**



Signing SAAs After Portal Update

SAAs are valid for one year with a simple renewal process. Email notifications will remind you to visit the SWIFT Portal and re-sign your SAAs.

The screenshot shows the SWIFT Portal interface. On the left is a navigation menu with links: Home, Discovery, Subscriptions (highlighted), Status, Maintenance, Alerts, Community, Reports, and Support. The main content area is titled 'Subscriptions' and includes a header with a disclaimer: 'Data obtained via SWIM Cloud Distribution Service (SCDS) is NOT for OPERATIONAL USE. All data has been pre-approved for public release by the NAS Data Release Board (NDRB).' Below this is a section for 'ADD SUBSCRIPTION' with a red box around 'SERVICE ACCESS AGREEMENT'. The main table lists services with columns for Agreement, Service, Description, Agreement status, and Date Signed. The first row, 'SFDPS SWIM Flight Data Publication Service', shows a status of '(1 of 4 signed)' and a table with one row where the 'Agreement' column has a green checkmark and the 'Date Signed' is '03/07/2023 8:27PM'. The second row, 'En Route Flight and Related Data - Airspace AIXM', has a 'SIGN' button highlighted with a red box. The third row, 'En Route Flight and Related Data - En Route General Publication', also has a 'SIGN' button. The fourth row, 'En Route Flight and Related Data - Status', has a 'SIGN' button. Below the table are sections for 'ITWS Integrated Terminal Weather Service' (0 of 2 signed), 'AIM FNS' (0 of 2 signed), and 'STDDS SWIM Terminal Data Distribution System' (3 of 5 signed).

Agreement	Service	Description	Agreement	Date Signed
SIT Dry Runs En Route Flight and Related Data - Flight FIXM	Flight FIXM	The System-Wide Information Management (SWIM) Flight Data Publication Service (SFDPs) provides en route flight data to National Airspace System (NAS) consumers. SFDPs allows consumers to receive real-time data for analytics, business processes, research, and other activities.	✓	03/07/2023 8:27PM
En Route Flight and Related Data - Airspace AIXM	Airspace AIXM	The System-Wide Information Management (SWIM) Flight Data Publication Service (SFDPs) provides en route flight data to National Airspace System (NAS) consumers. SFDPs allows consumers to receive real-time data for analytics, business processes, research, and other activities.	SIGN	
En Route Flight and Related Data - En Route General Publication	En Route General Message Publication	The System-Wide Information Management (SWIM) Flight Data Publication Service (SFDPs) provides en route flight data to National Airspace System (NAS) consumers. SFDPs allows consumers to receive real-time data for analytics, business processes, research, and other activities.	SIGN	
En Route Flight and Related Data - Status	Status	The System-Wide Information Management (SWIM) Flight Data Publication Service (SFDPs) provides en route flight data to National Airspace System (NAS) consumers. SFDPs allows consumers to receive real-time data for analytics, business processes, research, and other activities.	SIGN	



Policy Language Clarification

“NAS-Impacting”

- The term *NAS-Impacting* replaces *Operational* to provide a clearer definition of SCDS data usage practice.
 - “Data obtained via SWIM Cloud Distribution Service (SCDS) is NOT intended for NAS-Impacting usage.”
- **Why?**
 - Commercial consumers’ use of “Operational” is different from the FAA’s.
 - Business use cases for SCDS data are perfectly acceptable.
 - e.g., selling/providing apps based on SCDS data is a valid usage.
 - SCDS data is not intended to be used as the sole source for any aviation-safety related, law enforcement, or judicial activity that relies on the availability, validity, timeliness, or accuracy of data obtained via SCDS.

SCDS Data Usage

- **The FAA takes no responsibility for the accuracy, validity or completeness of data obtained from SCDS.**
- **As such, it is your responsibility to notify your consumers of :**
 - Planned and unplanned outages
 - Acceptable use of data obtained by SCDS

Operational Cost Management

Keeping SCDS Free

- **SWIM provides robust data for public users that is free to consume, but the FAA pays for data egress/storage/maintenance/portal support/etc.**
- **Costs are increasing, plus the FAA has new budget constraints.**
 - We want to keep providing our users with quality service, but that means **reducing costs**.
- **A sizeable cost-saving measure is to get users on board with ways of accessing data that help save us money.**
- **To that end, we are introducing three new **cost-saving policies**.**

Data Compression

- Data compression helps reduce SCDS operational cost by reducing internet bandwidth needs, which reduces costs to the FAA.
- Compressed data connections are now mandatory for SCDS operation, and **consuming compressed data is the only authorized method for obtaining SCDS data products.**
- It is users' responsibility to keep data compression enabled. Users who are not currently using compressed SCDS connections will be contacted for necessary transition procedures.

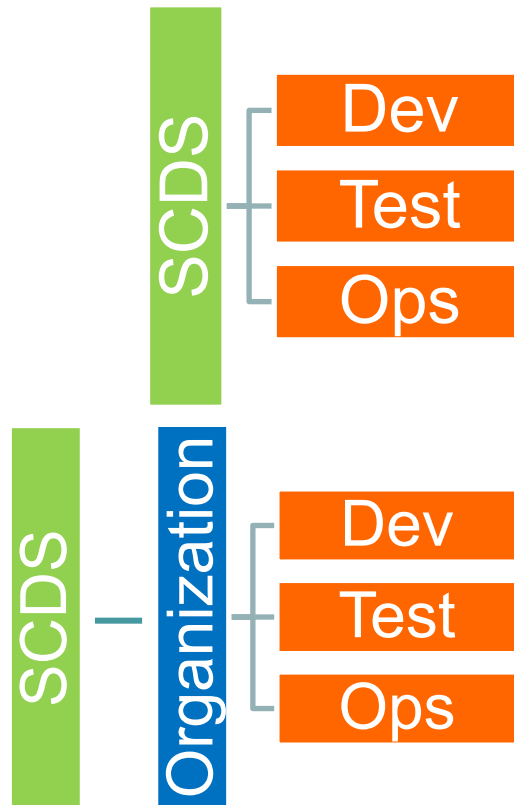
Java Messaging Service (JMS)

- SCDS uses **Solace JMS technology** to provide messaging to consumer queues.
- The JMS library provides native compression support in the consumer application, but AMQP does not.
- As such, users are required to access SCDS data products using JMS based consumer applications.
- **JMS is the only authorized connection method.***

* Unless special permission is granted

Internal Redistribution

- **Each subscription your organization uses costs the FAA money.**
 - Different subscriptions for different products, filters, etc. are reasonable.
 - Duplicate feeds with identical product filters are redundant data egress. Example: 3 identical STDDS subscriptions used for development, testing and operations.
- **Users are required per SCDS policy to internally distribute SCDS data products within their organization vs. requesting/maintaining duplicate subscriptions.**
- **Duplicate subscriptions within the same org will not be permitted and we will be reviewing these connections.**





TBFM 4.15 Updates for TBFM Subscribers

Time-Based Flow Management 4.15 Updates

- Updates allow for additional filtering possibilities
 - New data populated in JMS Header fields
 - 4 additional new fields
- Release currently planned for early November
- <https://nsrr.faa.gov/>

New Data

New Fields

Update	Message Group	Nature of the Update	Message Type	Data Format/Range
Versioning		MIS JMS Header Update	All Message Types	N.N.N, where each N can range from 0-99
Departure Airport Information	<dap>	MIS JMS Header Update	Air Information (all); Configuration Information (subset of messages)	3-4 characters
Destination Airport Information	<apt>	MIS JMS Header Update	Air Information (all); Configuration Information (subset of messages)	3-4 characters
Computer ID (CID)	<cid>	New Aircraft Information Data	Aircraft Information Data	3 alphanumeric ASCII Character
GUFI (Global Unique Flight Indicator)	<gufi>	New Aircraft Information Data	Aircraft Information Data	10 character ASCII string with 10 characters: A-Z or 0-9
Heartbeat Message	<hb>	New Message for MIS Info	Heartbeat Data	Not Applicable
DEX_SOURCE_TYPE		Identifier used to group messages for a SWIM service utilizing the value of 'TBFM'		

Re-cap

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- **Policy Language Clarification**
- **Operational Cost Management**
- **TBFM 4.15 Updates**



Questions



✉ **Waldo E. Ford**
SWIFT Portal Lead
Waldo.E.Ford@faa.gov

✉ **SCDS Helpdesk**
9-ATO-SECC-OPS@faa.gov

